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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,732	09/12/2003	Tack Sung Kim	12345/002001	8311
7590	01/23/2006			
Samuel Lee P.O. Box 927959 San Diego, CA 92192-7959			EXAMINER SHERMAN, STEPHEN G	
			ART UNIT 2674	PAPER NUMBER
DATE MAILED: 01/23/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/661,732	Applicant(s) KIM, TAEK SUNG	
	Examiner Stephen G. Sherman	Art Unit 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 3, paragraph [1007], starting at line 5 the specification recites: "...that using forearm.....than using writ or finger....movement of forearm." The examiner suggests changing this to read: "...that using **one's** forearm.....than using **one's** wrist or finger....movement of **one's** forearm."

On page 9, paragraph [1031], line 19 recites: "vertical translation movement 202." The examiner suggests changing this to read: "vertical translation movement **402.**"

Item 502 in Figure 5 is referred to as "display screen 502" in paragraph [1033] on page 10 and then referred to as "processor 502" in paragraph [1034] on page 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-4 and 13-18 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In paragraph [1042] on page 16 of the specification the applicant makes a brief statement about a received GPS signal and the GPS receiver receiving signals from the antennas, however, it is unclear how a GPS signal is used to determine the motion of the cursor on the screen.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1, 5-6 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. (US 5,703,623) in view of Hamberg (US 2002/0126089).

Regarding claim 1, Hall et al. disclose a remote control device (Figure 1, item 13), comprising:

a processor (Figure 2, item 8 and Column 7, lines 10-12.); and
at least first and second sensors operatively configured to provide position information of at least first and second points, respectively, on the remote control device (Column 7, lines 3-30. The examiner interprets that each pair of sensors determines information of at least a first and second point on the remote control device since the horizontal/vertical detection sensors determine when a point of the device is moved horizontally/vertically.),

the position information being sufficiently accurate to distinguish the first point from the second point (Column 7, lines 10-12. The examiner interprets that since the sensors work together and that the TV controller can interpret the signals to create

cursor movement on the screen that the position information is accurate enough to distinguish the first and second points apart.),

such that the provided position information of the first point with respect to the position information of the second point provides enough information to the processor to determine yaw, pitch, horizontal and vertical translation motions of the remote control device (Figure 6 and column 7, lines 6-12. The examiner interprets that since the microprocessor 8 can interpret the individual signals that there is enough information provided since the sensor sense the motion of the remote device in all of the degrees of motion.).

Hall et al. fail to teach of a remote control device with the position information being sufficiently accurate to distinguish the first point from the second point with respect to a terrestrial plane.

Hamberg discloses a remote control device with the position information being sufficiently accurate to distinguish the first point from the second point with respect to a terrestrial plane (Paragraph [0009]. The examiner interprets that since the sensor can detect the movement around an axis, that this would be distinguished based on points located on the device such that the sensor could have a relative position to detect the movement.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the sensor movement detection taught by Hamberg with the remote control taught by Hall et al. in order to enable a more intuitive control of an operation function of the apparatus to be controlled.

Regarding claim 5, Hall et al. and Hamberg disclose the remote control device of claim 1.

Hall et al. also disclose wherein the processor includes a motion converter that converts the position information of the first and second points into the yaw, pitch, horizontal and vertical translation motions of the remote control device (Column 7, lines 3-30. The examiner interprets that since the microprocessor can interpret the individual signals and that yaw, pitch, horizontal and vertical motions are sensed that the microprocessor contains a motion converter.).

Regarding claim 6, Hall et al. and Hamberg disclose the remote control device of claim 1.

Hall et al. also disclose wherein the processor includes a cursor movement converter that converts the processed yaw, pitch, horizontal and vertical translation motions into a cursor movement on a screen (Column 7, lines 3-30. The examiner interprets that since the cursor position on the screen is moved based on signals sent from the microcontroller that the microcontroller would contain a cursor movement converter.).

Regarding claim 19, this claim is rejected under the same rationale as claim 1.

Regarding claim 20, Hall et al. and Hamberg disclose the method of claim 19.

Hamberg also discloses a remote control device further comprising: transmitting the movement information to the screen to appropriately move the graphical icon (Paragraph [0009]. The examiner interprets that the control signal which is transmitted to the controllable apparatus AP would contain the information to move the graphical icon.).

7. Claims 2-4 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. (US 5,703,623) in view of Hamberg (US 2002/0126089) and further in view of Maca (US 2004/0203858) and Adan et al. (US 2004/0214562).

Regarding claim 2, Hall et al. and Hamberg disclose the remote control device of claim 1.

Hall et al. and Hamberg fail to teach of a remote control device wherein said at least first and second sensors include first and second antennas.

Maca discloses of a sensor that includes an antenna (Paragraph [0004]. The examiner interprets that since an antenna can be used as a sensor that the sensor would include an antenna.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the sensor antenna taught by Maca as the sensors taught by the combination of Hall et al. and Hamberg in order to properly measure position and timing differences in order to determine the location of a point located in the system.

Hall et al., Hamberg and Maca fail to teach of a remote control device with a differential GPS receiver.

Adan et al. disclose of a remote control device (Figure 8 and paragraphs [0048]-[0049]. The examiner interprets that since the remote control device is a cellular telephone that it would be inherent for the remote control device to have a GPS receiver since it is well known that cellular telephones have GPS capabilities.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the cellular telephone technology taught by Adan et al. with the remote control device taught by the combination of Hall et al., Hamberg and Maca in order to allow for a cell telephone to be used as a wireless pointing device to move a cursor and/or select options on a PC, or a television display, or on a display screen during a presentation.

Regarding claim 3, Hall et al., Hamberg, Maca and Adan et al. disclose the remote control device of claim 2.

Hall et al. also disclose wherein the first antenna operating with a receiver provides the position information of the first point to the processor (Column 7, lines 10-30. The examiner interprets that the microprocessor interprets that individual signals from the sensors, which include the antennas after the combination in claim 2, and that since the microprocessor would have to receive the information from the sensors that there is a receiver to attain the information and relay it to the microprocessor.).

Regarding claim 4, Hall et al., Hamberg, Maca and Adan et al. disclose the remote control device of claim 2.

Hall et al. also disclose wherein the second antenna operating with a receiver provides the position information of the second point to the processor (Column 7, lines 10-30. The examiner interprets that the microprocessor interprets that individual signals from the sensors, which include the antennas after the combination in claim 2, and that since the microprocessor would have to receive the information from the sensors that there is a receiver to attain the information and relay it to the microprocessor.).

Regarding claim 13, this claim is rejected under the same rationale as claims 3 and 4.

Regarding claim 14, this claim is rejected under the same rationale as claim 5.

Regarding claim 15, this claim is rejected under the same rationale as claim 6.

Regarding claim 16, this claim is rejected under the same rationale as claim 7.

Regarding claim 17, this claim is rejected under the same rationale as claim 11.

8. Claims 7-9, 11-12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. (US 5,703,623) in view of Hamberg (US 2002/0126089) and further in view of Adan et al. (US 2004/0214562).

Regarding claim 7, Hall et al. and Hamberg disclose the remote control device of claim 6.

Hall et al. and Hamberg fail to teach of a remote control device further comprising a transceiver configured to transmit the processed cursor movement to an external device and to receive commands or messages from the external device.

Adan et al. disclose a remote control device further comprising a transceiver configured to transmit the processed cursor movement to an external device and to receive commands or messages from the external device (Figure 8 and paragraphs [0048]-[0049]. The examiner interprets that since the remote device in this case is a cellular telephone, that it does contain a transceiver and that being a transceiver could transmit or receive information.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the cellular telephone technology taught by Adan et al. with the remote control device taught by the combination of Hall et al. and Hamberg in order to allow for a cell telephone to be used as a wireless pointing device to move a cursor and/or select options on a PC, or a television display, or on a display screen during a presentation.

Regarding claim 8, Hall et al., Hamberg and Adan et al. disclose the remote control device of claim 7.

Adan et al. also disclose wherein the external device is a computer (Paragraph [0005]).

Regarding claim 9, Hall et al., Hamberg and Adan et al. disclose the remote control device of claim 7.

Adan et al. also disclose wherein the external device is a television (Paragraph [0005]).

Regarding claim 11, Hall et al. and Hamberg disclose the remote control device of claim 1.

Hall et al. and Hamberg fail to teach further comprising: a local display configured to display local information.

Adan et al. disclose a remote control device comprising a local display configured to display local information (Figure 8 and paragraphs [0048]-[0049]. The examiner interprets that since the remote control device is a cellular phone that it would have a display screen for displaying information.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the cellular telephone technology taught by Adan et al. with the remote control device taught by the combination of Hall et al. and Hamberg in order to allow for a cell telephone to be used as a wireless pointing device to move a

cursor and/or select options on a PC, or a television display, or on a display screen during a presentation.

Regarding claim 12, Hall et al., Hamberg and Adan et al. disclose the remote control device of claim 11.

Although Adan et al. does not explicitly disclose that the local information includes a cursor movement offset, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to display a cursor movement offset on the display screen so that the information about the cursor movement would be made available to the user.

Regarding claim 18, Hall et al., Hamberg, Maca and Adan et al. disclose the remote control device of claim 17.

Although Adan et al. does not explicitly disclose wherein the local information includes estimated motions of the remote control device, it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to display estimated motions on the display screen so that the information about the cursor movement would be made available to the user.

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. (US 5,703,623) in view of Hamberg (US 2002/0126089) and further in view of Redford (US 5,339,095).

Regarding claim 10, Hall et al. and Hamberg disclose the remote control device of claim 6.

Hall et al. and Hamberg fail to teach wherein said at least first and second sensors include relative sensors that measure position information of the remote control device with respect to a fixed position on the screen.

Redford discloses of a remote control device wherein sensors include relative sensors that measure position information of the remote control device with respect to a fixed position on the screen (Column 7, lines 1-10. The examiner interprets that since the motion being calculated is the relative motion, that the sensor would be relative sensors and that the cursor would have a home position, fixed position, on the screen that the remote would move the cursor relative to.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the sensors taught by Redford with the remote control device taught by the combination of Hall et al. and Hamberg in order to provide a multimedia input device and system that accepts and transmits both alphanumeric and pointer data to a remote computer driven display device.

Conclusion


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SS

17 January 2006


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SUPERVISORY PATENT EXAMINER